#include <stdio.h>

#include <stdlib.h>

#include <conio.h>

#define size 10

int smallest(int arr[], int k, int n);

void selection\_sort(int arr[], int n);

int main(int argc, char \*argv[]) {

int arr[size], num, i, n, beg, end, mid, found=0;

printf("\n Enter the number of elements in the array: ");

scanf("%d", &n);

printf("\n Enter the elements: ");

for(i=0;i<n;i++)

{

scanf("%d", &arr[i]);

}

selection\_sort(arr, n);

printf("\n The sorted array is: \n");

for(i=0;i<n;i++)

printf(" %d\t", arr[i]);

printf("\n\n Enter the number that has to be searched: ");

scanf("%d", &num);

beg = 0, end = n-1;

while(beg<=end)

{

mid = (beg + end)/2;

if (arr[mid] == num)

{

printf("\n %d is present in the array at position %d", num, mid+1);

found =1;

break;

}

else if (arr[mid]>num)

end = mid-1;

else

beg = mid+1;

}

if (beg > end && found == 0)

printf("\n %d does not exist in the array", num);

return 0;

}

int smallest(int arr[], int k, int n)

{

int pos = k, small=arr[k], i;

for(i=k+1;i<n;i++)

{

if(arr[i]< small)

{

small = arr[i];

pos = i;

}

}

return pos;

}

void selection\_sort(int arr[],int n)

{

int k, pos, temp;

for(k=0;k<n;k++)

{

pos = smallest(arr, k, n);

temp = arr[k];

arr[k] = arr[pos];

arr[pos] = temp;

}

}

Output:

